

REMARKS

Claims 1-13 are all the claims pending in the application; claim 9 has been withdrawn from consideration; claims 1-8 and 10-13 are rejected.

A Substitute Specification and Abstract is submitted herewith and Applicants request entry of the same. As pointed out by the Examiner, there are a number of misspellings and improper punctuation in the application. Due to the large number of corrections, Applicants have prepared the Substitute Specification and Abstract. For the Examiner's convenience, Applicants have also included the amendments to the specification (correcting the SEQ ID numbers) set forth in the Preliminary Amendment dated October 30, 2000.

The Substitute Specification also contains a brief description of the BrdU assay (page 36, last five lines), and a table listing nucleic acid and amino acid sequences and their SEQ ID numbers (page 33, after line 1), as requested by the Examiner. Applicants assert that the assay is well-known to the skilled artisan and a similar description may be found in most handbooks of laboratory procedures.

The Title of the Invention has been amended, as requested by the Examiner, and as set forth in the Substitute Specification.

A "clean" copy of the Substitute Specification and Abstract, and a "marked-up" copy of the Substitute Specification and Abstract are submitted herewith.

Claim 1, 3 and 8 have been amended to recite that the homologous proteins encompassed in the claims have at least 95% homology to the polypeptides set forth in SEQ ID NOs: 3, 4, 8 and 9. Support for this amendment may be found at page 5, third full paragraph, of the substitute specification.

Claim 13 has been amended to recite positive method steps in the claim. Support for the amendment may be found at page 26, line 17 – page 27, line 12, of the substitute specification.

Each of the claims has also been amended to delete recitation of subject matter no longer being claimed, to correct misspellings and improper grammar, and to place the claims more fully in U.S. format.

New claim 14 has been added. Support for the new claim may be found in the substitute specification at page 4, line 14.

No new matter has been added. Entry of the amendment is earnestly solicited.

I. Objections to the Specification

A. At paragraph 7 of the Office Action, the Examiner states that there are a number of misspellings and inappropriate punctuation marks in the specification and requests correction.

In response, Applicants submit herewith a Substitute Specification in which all misspellings and all impermissible punctuation marks have been corrected. Accordingly, Applicants respectfully request reconsideration and withdrawal of the Examiner's objections.

B. At paragraph 8 of the Office Action, the specification is objected to for containing a confusing description of the sequences recited in the sequence listing and exons, specifically the discussions at pages 33 and 35. The Examiner suggests that a table may be helpful.

In response, Applicants include in the Substitute Specification a table as requested by the Examiner (page 33, after line 1). Applicants assert that the table accurately recites the identity of each of the ten sequences discussed in this section of the specification (please note the Preliminary Amendment filed October 30, 2000, amending the identity of some of the sequence listings).

As to the discussion of the two isoforms found at pages 33 and 35 of the specification, Applicants have prepared amendments to the specification to more clearly describe the isoforms and how they were prepared.

Applicants also note that in regard to the A55 and A55b proteins in Example 5 of the specification (pages 34-35), due to alternative splicing of the gene encoding A55, two different isoforms can be produced (A55 and A55b). When translated into proteins, the two isoforms are identical with the exception of the N-terminal 19 amino acids of clone A55b and the N-terminal six amino acids of clone A55.

In view of the amendments to the specification, the addition of the table, and the discussion above, Applicants assert that the specification now clearly describes the sequences disclosed in the application and provides an adequate discussion of the isoforms. Accordingly, Applicants respectfully request reconsideration and withdrawal of this objection.

C. At paragraph 9 of the Office Action, the Examiner requires a brief explanation of the BrdU incorporation assay be amended into the specification.

In response, Applicants have amended the specification to define BrdU and provide a brief explanation of the assay (page 36, last five lines). Accordingly, Applicants respectfully request reconsideration and withdrawal of this objection.

D. At paragraph 10 of the Office Action, the Examiner objects to the Abstract as containing many misspellings, and for being incomplete.

In response, Applicants submit herewith a Substitute Specification containing an amended abstract that more completely describes the invention and in which the misspellings

have been corrected. Accordingly, Applicants respectfully request reconsideration and withdrawal of this objection.

E. At paragraph 11 of the Office Action, the Examiner objects to the title due to the inclusion of the term "novel."

In response, Applicants have amended the title as set forth in the Substitute Specification to remove the term "novel." Accordingly, Applicants respectfully request reconsideration and withdrawal of this objection.

II. Objections to the Claims

A. At paragraph 12 of the Office Action, claims 6-8 are objected to under 37 C.F.R. §1.75(c) as being in improper form due to the multiple dependency of claim 6. The Examiner suggests the use of the phrase "according to any one of claims 3-5."

In response, Applicants submit herewith an amendment to claim 6 utilizing the phrase suggested by the Examiner.

B. At paragraph 13 of the Office Action, claim 8 is objected to under 37 C.F.R. §1.75(c) as being in improper multiple dependent form because it depends from more than one claim not in the alternative.

In response, Applicants submit herewith an amendment to claim 8 such that it now only depends from claim 7.

C. At paragraph 14 of the Office Action, claim 10 is objected to for containing non-elected subject matter in the phrase "or the antibody according to claim 9."

In response, Applicants submit herewith an amendment to claim 10 removing the non-elected subject matter.

Accordingly, Applicants respectfully request reconsideration and withdrawal of each of the objections noted by the Examiner in this portion of the Office Action.

III. Rejection of claims under 35 U.S.C. §112, second paragraph

A. At paragraph 15 of the Office Action, claims 1-8 and 10-13 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

The Examiner asserts that in claims 1, 4 and 5 the phrase "that comprising" is confusing and the word "that" should be deleted from each claim.

In response, Applicants submit herewith an amendment to the noted claims canceling the term "that" from the claims as suggested by the Examiner.

B. At paragraph 16 of the Office Action, claims 1, 3, 5-8 and 10-13 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

The Examiner states that the term "homologue" is unclear, specifically as to whether a "structural" or "functional" homologue is contemplated. The Examiner requires clarification.

In response, Applicants submit herewith an amendment to the claims to recite that the homologues are sequence homologues with at least 95% sequence homology.

C. At paragraph 17 of the Office Action, claims 2, 8 and 10-13 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

The Examiner states that the use of the phrase "consists (comprising)" in claim 2 is confusing and requires clarification.

In response, Applicants submit herewith an amendment to claim 2 canceling the term "consists" from the claim.

D. At paragraph 18 of the Office Action, claims 6-8 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

The Examiner states that the term "carrying" in claim 6 is not a term of art and suggests it be replaced with "comprising."

In response, Applicants submit herewith an amendment to claim 6 to replace the term "carrying" with "comprising" as suggested by the Examiner.

E. At paragraph 19 of the Office Action, claim 13 is rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

The Examiner states that claim 13 is a method claim without steps. Further, that in line 2 "the said" is redundant.

In response, Applicants submit herewith an amendment to claim 13 to recite positive steps, and delete the term "the" from the phrase noted by the Examiner. Support for the amendment may be found at page 26, line 17 – page 27, line 12, of the specification.

Accordingly, Applicants respectfully request reconsideration and withdrawal of each of the rejections noted by the Examiner in this portion of the Office Action.

IV. Rejection of claims under 35 U.S.C. §112, first paragraph

A. At paragraph 20 of the Office Action, claims 1, 3-8 and 10-13 are rejected under 35 U.S.C. §112, first paragraph, as lacking adequate written description.

The Examiner explains that the use of the terms "homologue", "fragment", and "homologue of the fragment" in claim 1, and the term "fragment...selectively hybridized" in claims 4 and 5, relate to subject matter which was not described in the specification in such a

way as to reasonably convey to one skilled in the art that the inventors had possession of the claimed invention.

In response, Applicants submit herewith amendments to the claims to remove all recitation of "fragments", "homologues of fragments" and "selective hybridization". In addition, the amendments to the claims limit the homologues of the polypeptides set forth in SEQ ID NOs: 3, 4, 8 and 9 to those homologues that have at least 95% homology to the polypeptides set forth in the sequence listings, over the entire length of the polypeptides, and that have the same function as the polypeptides. Support for the amendment may be found at page 5, third full paragraph, of the specification.

Thus, in view of the amendments to the claims to recite a narrow, well-defined genus of polypeptides based on structural and functional limitations, Applicants assert that the present specification provides adequate written description for the claims as amended.

Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

B. At paragraph 21 of the Office Action, claims 1-8 and 10-13 are rejected under 35 U.S.C. §112, first paragraph, as lacking adequate enablement.

The Examiner states that although Applicants assert a function for the A55 polypeptide of the present invention in the suppression of smooth muscle cells, the data presented in the application is not convincing. Therefore, the Examiner asserts, the skilled artisan would be required to assay for functionality of the claimed protein, and the specification provides no guidance or working examples for such experimentation.

In response, Applicants note that an explanation of the BrdU assay has been inserted into the specification by amendment. As therein described, the assay is a measure of cellular proliferation and was used to demonstrate the suppressive effects of the proteins of the present invention on smooth muscle cell proliferation.

Applicants also assert that the supernatant from cell cultures transfected with an A55 expression vector ("A55 supernatant") showed a significant level of inhibition of smooth muscle cell proliferation, as compared to smooth muscle cells treated with supernatant from cell cultures transfected with empty vector ("vector supernatant") (please see Figure 1).

Furthermore, the inhibition of smooth muscle cell proliferation upon treatment with A55 supernatant plus PDGF was significantly less than the inhibition of such cells treated with the same amount of PDGF alone or in conjunction with vector supernatant.

Applicants also enclose herewith the results of an additional experiment performed to demonstrate the inhibitory effects of the claimed proteins, and to show that BrdU incorporation plays no role in the inhibitory effects seen upon treatment of smooth muscle cells with A55 protein. As seen from the chart in Appendix 1, a cell proliferation assay was performed comparing the effects of human A55 protein against PDGF treatment and a negative control. This experiment was performed by measuring 3[H] thymidine incorporation and shows that BrdU had no contribution to the inhibitory effects of A55.

Cells used in the 3[H] thymidine incorporation assay were primary cultures of vascular smooth muscle cells that were isolated from rat aortae extending between the heart and diaphragm. Because primary cultures were used, the cells maintained the features of vascular smooth muscle cells found in the living body and were thus different from cultured cell lines.

The results showing inhibition of proliferation on primary culture cells in this assay should correlate well with the *in vivo* effects of the claimed proteins.

Applicants can submit the experimental results shown in Appendix 1 in the form of a Rule 132 Declaration if desired by the Examiner.

Applicants note that the supernatant from cultured cells expressing the A55 gene may include some factor secreted along with the A55 protein. However, the skilled artisan would consider it highly unlikely that a cytotoxic material is being secreted into the supernatant of the cultured cells.

Accordingly, Applicants assert that the inhibitory effects of the proteins of the present invention on the proliferation of smooth muscle cells has been established and is sufficient evidence of therapeutic usefulness as described in the specification. Thus, the skilled artisan would find sufficient enablement in the specification to make and use the instant invention.

Therefore, Applicants respectfully request reconsideration and withdrawal of this rejection.

C. At paragraph 22 of the Office Action, claims 10-12 are rejected under 35 U.S.C. §112, first paragraph, as lacking adequate enablement.

The Examiner states that the instant claims are not enabled because for claims to be drawn to "pharmaceutical compositions", a therapeutic use must be enabled. The Examiner further states that there is no guidance or working examples of the A55 polypeptide as an effective therapeutic in the present disclosure. The Examiner suggests that the term "pharmaceutical" be deleted from the claims.

In response, Applicants assert that given the evidence that the proteins of the present invention may be used in blocking proliferation of smooth muscle cells (including the additional evidence discussed above), and the relative level of skill in the art, a therapeutic use is clearly enabled. A skilled artisan would be able to prepare and administer a therapeutic composition comprising the proteins of the present invention.

Therefore, Applicants respectfully request reconsideration and withdrawal of this rejection.

V. Rejection of claims under 35 U.S.C. §101

At paragraph 23 of the Office Action, claims 1-8 and 10-13 are rejected under 35 U.S.C. §101 as lacking a patentable utility.

The Examiner asserts that while the specification discloses a number of utilities for the present invention, they are each speculative and lack specificity because the function of A55 is allegedly unclear.

In response, Applicants assert that the experimental data demonstrating that the A55 polypeptide (Example 7 of the specification) has the function of suppressing growth of vascular smooth muscle cells is adequate to establish a utility for the present invention.

The asserted use for the polypeptide is credible. The experimental evidence shows that the polypeptide suppresses the growth of vascular smooth muscle cells. The skilled artisan would accept the experimental evidence as credible proof of the function of the protein.

The asserted use is specific. The claimed utility is not as a general suppressor of cell growth, but is specific to vascular smooth muscle cells.

The asserted use is substantial. The use is a "real world" use. One can easily envision a product containing the polypeptide for use in suppression of, at the least, growth of vascular smooth muscle cells in culture. Such a polypeptide could be important for studying the effects of experimental compounds in cell culture.

Moreover, Applicants refer to the disclosure at page 22483, lines 38-60, of Nakamura et al. (*J. Biol. Chem.* 274(32):22476-22483 (1999), submitted herewith) wherein it is stated that DANCE (an alternative name for A55) is expressed in vascular endothelial or vascular smooth muscle cells in settings of pathological vascular remodeling and that the protein inhibits cell proliferation in an autocrine or paracrine manner. This publication shows the relationship between inhibition on proliferation of vascular smooth muscle cells by A55 and blood vessel restenosis or arteriosclerosis, and it is suggested that A55 is effective for such treatment.

Applicants note that this application is a 371 of PCT/JP99/02283, filed on April 28, 1999. The publication date of Nakamura et al. is August 6, 1999, which is after the filing date of the PCT application. Thus, Nakamura et al. may not serve as legally-effective prior art against the claims of the pending application.

In view of the comments above, Applicants assert that a patentably utility has clearly been established for the proteins of the present invention. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

VI. Rejection of claims under 37 C.F.R. §102

A. At paragraph 24 of the Office Action, claims 3-5 are rejected under 35 U.S.C. §102(b) as being anticipated by Lee et al. (GenBank Accession No. AA801465, created July 19, 1995).

The Examiner asserts that Lee et al. discloses a polynucleotide sequence that encodes a protein 95% homologous to SEQ ID NO: 8, from residue 297 to residue 443. The Examiner concludes that the sequence of Lee et al. is a fragment homologue of SEQ ID NO: 8.

The Examiner also states that because the sequence of Lee et al. and those of SEQ ID NOs: 2 and 7 are highly similar, the Lee et al. sequence would hybridize to SEQ ID NOs: 2 and 7.

In response, Applicants note that amendments to the claims canceling any recitation of fragments and homologous of fragments have been submitted herewith.

In addition, Applicants have amended the claims to recite proteins homologous to the polypeptides set forth in SEQ ID NOs: 3, 4, 8 and 9, wherein said homologous proteins have at least 95% sequence homology over the entire length of the polypeptide.

Lee et al. discloses a sequence that has approximately 95% homology to A55, but only from residues 297 to 443. There is no indication that it has 95% homology over the full-length of the A55 amino acid sequence as now claimed. Thus, as now amended, the claims of the present invention are not anticipated by the disclosure of Lee et al. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

B. At paragraph 25 of the Office Action, claims 1, 3-8 and 10-13 are rejected under 35 U.S.C. §102(e) as being anticipated by Bandman et al. (U.S. Patent No. 5,872,234).

The Examiner states that Bandman et al. teaches an isolated human ECMP polypeptide (SEQ ID NO: 1) that is 91% homologous to SEQ ID NOs: 3 and 8 of the present invention. The Examiner concludes that the sequence of Bandman et al. is a fragment homologue of SEQ ID NOs: 3 and 8. The examiner further states that Bandman et al. teach a DNA sequence greater than 79% and 66% identical to SEQ ID NOs: 7 and 2, respectively, the polypeptide in a

pharmaceutical composition, the DNA in vectors and host cells, methods for making the polypeptide and methods of screening for agents which specifically bind the polypeptides.

In response, Applicants again note that the claims have been amended to cancel any recitation of fragments and homologous of fragments.

In addition, Applicants have amended the claims to recite proteins homologous to the polypeptides set forth in SEQ ID NOs: 3, 4, 8 and 9, wherein said homologous proteins have at least 95% sequence homology over the entire length of the polypeptide.

As a result of the amendments, Applicants assert that the amended claims are no longer anticipated by the teachings of Bandman et al. because this publication does not disclose a polypeptide of at least 95% homology to one of the polypeptides set forth in SEQ ID NOs: 3, 4, 8 and 9, over its entire length. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

C. At paragraph 26 of the Office Action, claims 3-5 are rejected under 35 U.S.C. §102(a) as being anticipated by Marra et al. (GenBank Accession No. AA437518, created March 20, 1997).

The Examiner states that Marra et al. teaches a mouse polynucleotide sequence identical to SEQ ID NO: 2 between nucleotides 1130-1429 are identical to SEQ ID NO: 7 from between nucleotides 1326-1625. The overlap allegedly encodes ~100 amino acids at the C-terminus of the A55 polypeptide (SEQ ID NOs: 3 and 8) exactly.

In response, Applicants again note that the claims have been amended to cancel any recitation of fragments and homologous of fragments.

In addition, Applicants have amended the claims to recite proteins homologous to the polypeptides set forth in SEQ ID NOs: 3, 4, 8 and 9, wherein said homologous proteins have at least 95% sequence homology over the entire length of the polypeptide.

As a result of the amendments, Applicants assert that the amended claims are no longer anticipated by the teachings of Marra et al. because this publication does not disclose a polypeptide of at least 95% homology to one of the polypeptides set forth in SEQ ID NOs: 3, 4, 8 and 9, over its entire length. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

VII. Rejection of claims under 35 U.S.C. §103

A. At paragraph 27 of the Office Action, claims 1 and 6-8 are rejected under 35 U.S.C. §103(a) as being unpatentable over Lee et al. in view of Bork et al. (Current Opinion in Structural Biology, 1994).

The Examiner asserts that based on the EST disclosed by Lee et al., and the technology disclosed by Bork et al., it would have been obvious to one of ordinary skill in the art to use the EST of Lee et al. to screen a rat cDNA library and identify the full-length gene of the present invention. The Examiner cites the desire to learn from assaying the expressed protein product of an EST as motivation.

In response, Applicants strongly assert that the rejection of the cited claims over Lee et al. in view of Bork et al. is without merit. First, the motivation cited by the Examiner is only motivation to study a theoretical problem, and not to identify a particular protein for a particular reason. One of ordinary skill in the art could choose from hundreds of different ESTs to use to

try and clone a full-length gene. There was no specific motivation to use the EST of Lee et al. in an effort to clone the full-length gene encoding the A55 polypeptide.

Further, there is no indication in the disclosure of Lee et al. that one of ordinary skill in the art appreciated that the particular EST selected by the Examiner (said to be part of a catalogue of rat ESTs) was an open reading frame. There would have been very little motivation for one of ordinary skill in the art to review all rat ESTs in GenBank and select the one identified by the Examiner for further study. Similarly, there is no disclosure in Lee et al. that a function for a protein corresponding to the EST could be predicted from the sequence of the EST.

In addition, there is no indication that the sequence homology between the EST of Lee et al. and the cDNA encoding the A55 protein (95% over 146 nucleotides) would have been adequate to have identified the gene of the present invention. An equally likely result would have been the isolation of an entirely different gene.

Therefore, Applicants assert that the disclosure of Lee et al., in view of Bork et al., does not make the pending claims obvious, and Applicants respectfully request reconsideration and withdrawal of this rejection.

B. At paragraph 28 of the Office Action, claims 1, 6-8 and 10-12 are rejected under 35 U.S.C. §103(a) as being unpatentable over Marra et al. in view of Bork et al.

The Examiner cites to Marra et al. and Bork et al. for the same reasons as discussed for the rejection over Lee et al. in view of Bork et al.

In response, Applicants reiterate their comments above with respect to the rejection of the claim as obvious over the teachings of Lee et al. in view of Bork et al.

Applicants assert that as with Lee et al., the motivation cited by the Examiner is only motivation to study a theoretical problem, and not to identify a particular protein for a particular reason. One of ordinary skill in the art could choose from hundreds of different ESTs to use to try and clone a full-length gene. There was no specific motivation to use the EST of Marra et al. in an effort to clone the full-length gene encoding the A55 polypeptide.

Further, there is no indication in the disclosure of Marra et al. that one of ordinary skill in the art appreciated that the particular EST selected by the Examiner (said to be part of a catalogue of mouse ESTs) was an open reading frame. There would have been very little motivation for one of ordinary skill in the art to review all mouse ESTs in GenBank and select the one identified by the Examiner for further study. Similarly, there is no disclosure in Marra et al. that a function for a protein corresponding to the EST could be predicted from the sequence of the EST.

In addition, there is no indication that the sequence homology between the EST of Marra et al. and the cDNA encoding the A55 protein would have been adequate to have identified the gene of the present invention. An equally likely result would have been the isolation of an entirely different gene.

Therefore, Applicants assert that the disclosure of Marra et al., in view of Bork et al., does not make the pending claims obvious, and Applicants respectfully request reconsideration and withdrawal of this rejection.

VIII. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner

AMENDMENT UNDER 37 C.F.R. §1.111
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feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

A Substitute Specification and Abstract amending the title, specification and abstract has been submitted herewith. A "marked-up" version has been included showing the amendments.

IN THE CLAIMS:

Claim 9 is canceled.

The claims are amended as follows:

1. (Amended) A substantially ~~Substantially~~ purified form of the polypeptide that comprising the amino-acid sequence shown in SEQ ID NO. 3, 4, 8 or 9, or a homologue thereof having at least 95% sequence identity over the full length of the amino acid sequence and having the same function, ~~fragment thereof or homologue of the fragment.~~
2. (Amended) A polypeptide according to claim 1 comprising ~~that consists~~ ~~(comprising)~~ of the amino-acid sequence shown in SEQ ID NO. 3, 4, 8 or 9.
3. (Amended) A cDNA encoding the polypeptide according to claim 1, or a cDNA encoding a homologue of a polypeptide according to claim 1 having at least 95% sequence identity over the full-length of the nucleotide sequence shown in SEQ ID NO: 1, 5, 6 or 10.
4. (Amended) A cDNA according to claim 3 ~~that~~ comprising the nucleotide sequence shown in SEQ ID NO. 1, 5, 6 or 10 ~~or a fragment cDNA selectively hybridized to the~~ cDNA.

5. (Amended) A cDNA according to claim 3 ~~that comprising the nucleotide sequence shown in SEQ ID NO. 2 or 7 or a fragment cDNA selectively hybridized to the cDNA.~~

6. (Amended) A replication or expression vector comprising ~~carrying~~ the cDNA according to any one of claims 3 to 5.

8. (Amended) A method for producing a the polypeptide of SEQ ID NO: 3, 4, 8 or 9, or a homologue thereof having at least 95% sequence identity over the full length of the amino acid sequence and having the same function, according to claim 1 or 2 ~~which comprises comprising culturing a host cell of according to claim 7 under a condition effective to express the polypeptide, and recovering the polypeptide so expressed according to claim 1 or 2.~~

10. (Amended) A pharmaceutical composition comprising ~~containing~~ the polypeptide according to claim 1 or 2 ~~or the antibody according to claim 9,~~ in association with a pharmaceutically acceptable diluent or and/or carrier, or both.

11. (Amended) A pharmaceutical composition for the treatment of abnormal growth of a smooth muscle cell, said composition comprising ~~containing~~ a polypeptide according to claim 1 or 2, in association with a pharmaceutically acceptable diluent or and/or carrier, or both.

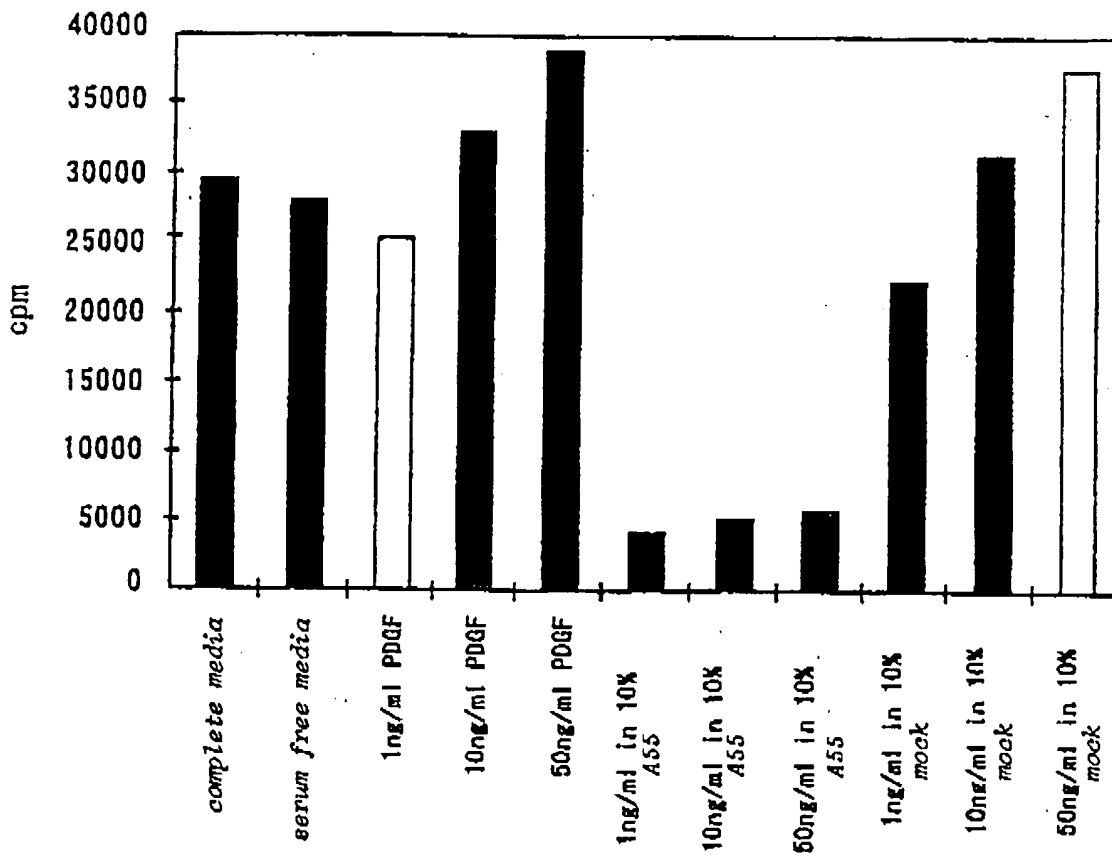
12. (Amended) A pharmaceutical composition for the treatment of arteriosclerosis, restenosis after PTCA or myosarcoma, said composition comprising ~~containing a the~~ polypeptide according to claim 1 or 2, in association with a pharmaceutically acceptable diluent or and/or carrier, or both.

13. (Amended) A ~~screening~~ method for screening for an antagonist or agonist of a the polypeptide according to claim 1 or 2, said method comprising preparing a first and second culture of a cell line, culturing said first cell line in the presence of one or more of said

polypeptides, culturing said second cell line in the presence of one or more of said polypeptides and a test compound, and comparing the proliferation of the two cultures, thereby screening for an antagonist or agonist of a polypeptide according to claim 1 or 2 ~~with using the said~~ polypeptide.

Claim 14 is added as a new claim.

Appendix 1



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